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| CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP |             |                      | BROWN, CHRISTOPHER J |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAUL HARRY ABBOTT

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Appeal 2009-007435  
Application 10/046,058  
Technology Center 2400

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Before CARLA M. KRIVAK, THOMAS S. HAHN,  
and ELENI MANTIS MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

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Application 10/046,058

### STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134(a) of the Examiner's non-final rejection of claims 1-34. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

### INVENTION

Appellant's claimed invention is directed to fragmenting a key or certificate (Fig. 1: 150) into non-uniform fragments (Fig. 1: 152, 154) based on a pre-determined algorithm (Fig. 2: 200). The fragments are intermixed and stored to a disk (Fig. 2: 280). The location for storing the fragments is also determined by the algorithm. *See generally* Spec. 5; Figs. 1, 2.

Claim 1, reproduced below, is representative of the subject matter on appeal:

1. A method for storage of security keys and certificates in a data processing system comprising:
  - providing at least one entity (150) in the form of a key or certificate for storage in a storage means;
  - fragmenting the entity into fragments (152, 154) of non-uniform length according to a predetermined algorithm (200);
  - storing the fragments (152, 154) in the storage means (280);
  - wherein fragments (152, 154) of the at least one entity (150) are intermixed within the storage means.

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

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|        |                    |               |
|--------|--------------------|---------------|
| Bahls  | US 5,706,513       | Jan. 6, 1998  |
| Kausik | US 2001/0008012 A1 | Jul. 12, 2001 |
| Henson | US 7,003,108 B2    | Feb. 21, 2006 |

Hash Collision, [http://en.wikipedia.org/wiki/Hash\\_collision](http://en.wikipedia.org/wiki/Hash_collision) (last visited May 12, 2006).

The following rejections are before us for review:

1. The Examiner rejected claims 1, 2, 4-9, 11-14, 16-24, 26-31, 33, and 34 under 35 U.S.C. § 103(a) as unpatentable over Kausik in view of Bahls.
2. The Examiner rejected claims 10 and 32 under 35 U.S.C. § 103(a) as unpatentable over Kausik in view of Bahls.
3. The Examiner rejected claims 3, 15, and 25 under 35 U.S.C. § 103(a) as unpatentable over Kausik in view of Bahls and further in view of Henson.

## ISSUE

The pivotal issues are:

1. Whether the combination of Kausik in view of Bahls teaches fragmenting a key or a certificate as recited in claim 1;
2. whether Bahls teaches the algorithm that determines the location for storing the fragments is also *the same* algorithm that determines how the entity is to be fragmented as recited in claim 5; and
3. whether the Examiner provided adequate factual support in response to Appellant's traversal of the Examiner's Official Notice.

## PRINCIPLES OF LAW

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court stated that “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *Kahn*, 441 F.3d at 988).

## ANALYSIS

*Analysis with respect to the rejections of claims 1-4, 6-9, 11-15, 17-26, 28-31, 33, and 34.*

Appellant argues that the Examiner failed to establish any reasonable basis for explaining why one having ordinary skill in the art would look to fragment entities in the form of a key (App. Br. 5). Appellant notes that Bahls's “private key A” which is specifically generated for Obj. 1 is stored with each of the fragments of Obj. 1 (i.e., Seg. 1, Seg. 2, and Seg. 3) (App. Br. 6).

We agree with Appellant. At best, Bahls teaches that a private key is stored with each of the segments (i.e., with the 2<sup>nd</sup> through the N<sup>th</sup> segments of the object on the staging queue 108 and with the 1<sup>st</sup> segment of the object on the ready queue 106) of a data object (col. 3, ll. 41-65). There is no teaching in Bahls of segmenting or fragmenting keys. On the contrary, all

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the keys, whether private or public generated in Bahls, are stored with their corresponding appropriate segments of Object data (col. 3, ll. 41-65). While we agree with the Examiner (Ans. 8) that Bahls is concerned with the finite amount of memory and segments the data objects for storage at different storage mediums, Bahls's teaching value does not extend to also segmenting the associated keys of those segments.

Thus, the Examiner's articulated reasoning (Ans. 9) in the rejection for modifying Kausik in view of Bahls (i.e., segmenting the keys or certificates due to the limited storage) does not provide a rational underpinning to support the legal conclusion of obviousness. *See Kahn*, 441 F.3d at 988.

For the above reasons, we will reverse the Examiner's rejection of claim 1 and for similar reasons the rejections of claims 2, 4, 6-9, 11-14, 17-24, 26, 28-31, 33, and 34. We will also reverse the Examiner's rejection of claims 3, 15, and 25 as Henson does not cure the above cited deficiencies.

*Analysis with respect to the rejection of claims 5, 16, and 27.*

Appellant argues that Bahls does not teach *the* algorithm recited in claims 5, 16, and 27 that determines the location for storing the fragments is also *the same* algorithm that determines how the entity is to be fragmented (App. Br. 6-8). We are persuaded by Appellant's argument.

The Examiner asserts it is inherent that Bahls's algorithm, which determines the manner of splitting the data object based upon the size of the storage location, also determines the storage location. We are not persuaded by the Examiner's inherency argument because it is not necessary that a

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single algorithm in Bahls determines the splitting based on size and location. It could be the case that two separate algorithms are used, one determining the splitting based on size and a second one determining where to store the fragments based on their size.

Thus, we will also reverse the Examiner's rejection of claims 5, 16, and 27.

*Analysis with respect to the rejection of claims 10 and 32.*

Appellant traverses the Examiner's taking Official Notice that when a collision occurs the object is stored immediately following the occupied spot as recited in claims 10 and 32 (App. Br. 8-9). Appellant acknowledges the Examiner's response (App. Br. 9) with the article titled "Hash Collision" reciting that the "most popular ways of dealing with this are . . . searching other array indices nearby for an empty space." However, Appellant further asserts the Examiner did not provide any factual support for the rationale to combine Kausik and Bahls (App. Br. 9).

We find that the Examiner did not adequately respond to Appellant's traversal because the Hash Collision article, at best, teaches that when a collision occurs the object is stored *nearby*, and *not immediately following the occupied spot* as claimed. The Examiner did not provide any rationale as to why one skilled in the art would modify the "*nearby*" teaching to combine it with Kausik and Bahls to arrive at the claimed *immediately following the occupied spot*.

Thus, we will also reverse the Examiner's rejection of claims 10 and 32.

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## CONCLUSIONS

1. The combination of Kausik in view of Bahls does not teach fragmenting a key or a certificate;
2. Bahls does not teach the algorithm that determines the location for storing the fragments is also *the same* algorithm that determines how the entity is to be fragmented; and
3. the Examiner did not provide adequate factual support in response to Appellant's traversal of the Examiner's relying on Official Notice.

## ORDER

The decision of the Examiner to reject claims 1-34 is reversed.

REVERSED

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